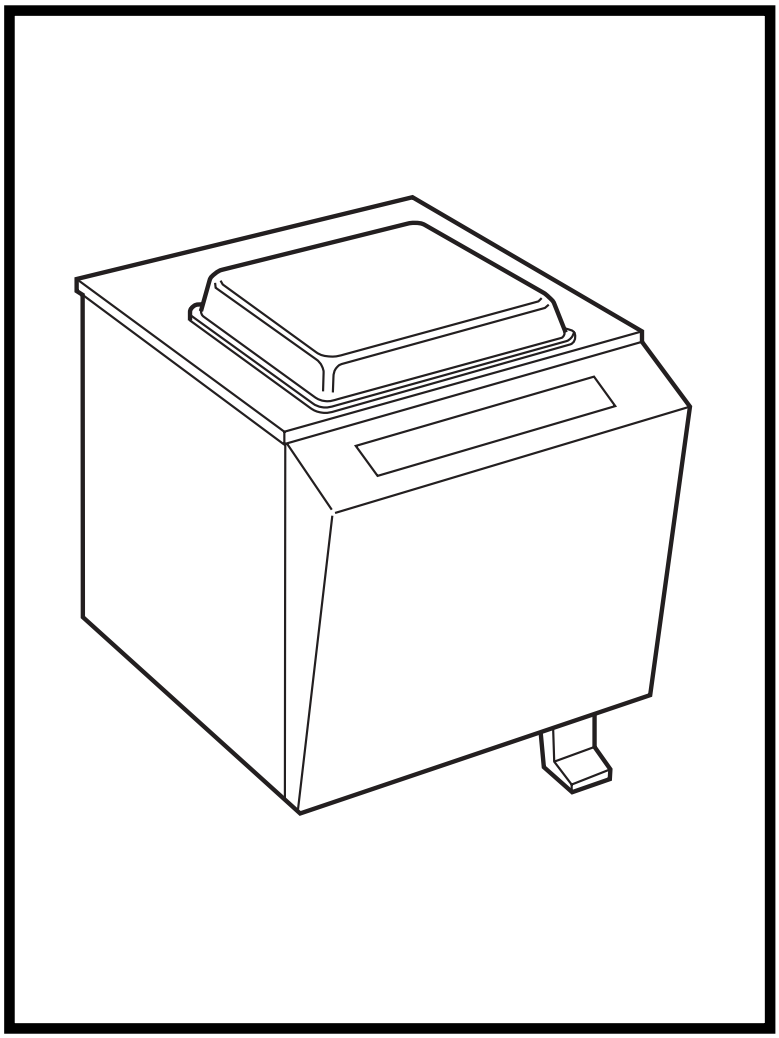
INSTALLATION



Flusher disinfector S-406

Serial No. 203.238 -

4996959-01

GETINGE DISINFECTION

CE 0301

Produced: 1998

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Safety rules

This machine is designed with a number of integrated safety devices. To avoid personal injury it is essential that the safety devices are not bypassed or in any other way put out of action.

General safety rules

- The machine should be connected in accordance with the installation instructions.
- The machine may not by used by juveniles.
- Installation and servicing should be carried out by staff with experience of this machine.
- The lid lock of the machine may not be bypassed under any circumstances.
- Leakage in the system, eg, due to worn lid gasket, must be repaired immediately.
- Personnel concerned must study valid handbooks and service manuals prior to any repairs or service work.
- The machine may not be sprayed with water.
- Caution must be observed when using corrosive detergents.
- Safety precautions must be observed when using hot water or steam.

Power cut-off device

The machine must always be provided with a separate power cut-off device in the power supply line, easily accessible on the wall.

Caution symbols

This manual contains certain warnings, instructions and advice of such importance that they are particularly emphasized. The configuration and use of the appertaining symbols are as follows:

This symbol indicates a warning in text included in the manual. Such warnings refer to hazards that can result in more or less serious injury and in some cases fatal injury.

It is also used in warnings to avoid damage to the machine.

Installation

The disinfector may be placed in a free-standing position on four legs or mounted on a wall in a special wall bracket.

To facilitate cleaning, a lateral distance of 100 mm to an adjacent wall or other equipment is recommended. If the disinfector is installed next to a sink unit or worktop, a lateral distance of 40 mm is recommended.

Wall-mounted models have a transport stay which should be removed.

Free-standing position

Screw the legs securely into the four corners of the support frame. Adjust with the adjusting screws until the disinfector stands level and firm.

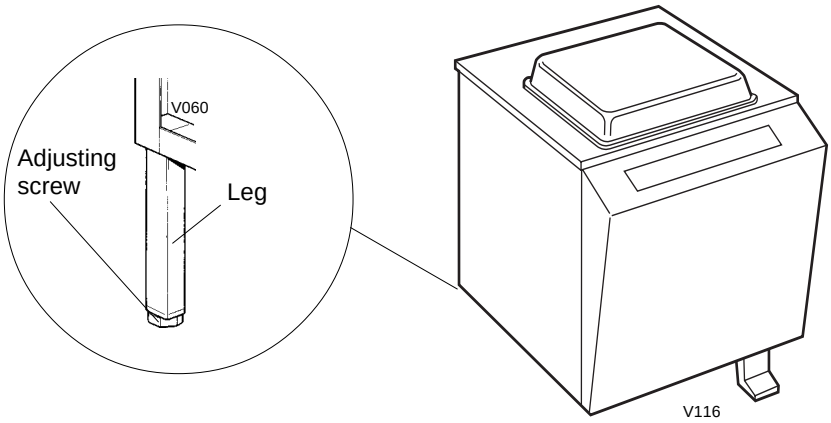

Fig. 1. Fitting the support legs

Fixation in wall

- Fix the disinfector on the wall bracket supplied with the machine. If the wall does not provide good support, use a wall fixture or support legs (both of which can be ordered from Växjö Rostfritt). Ensure that the machine is in level.

N.B.
If a wall fixture is used, this must be put into position when the wall is being built up.

- Drill holes for the securing screws for the wall bracket as per figure 2.

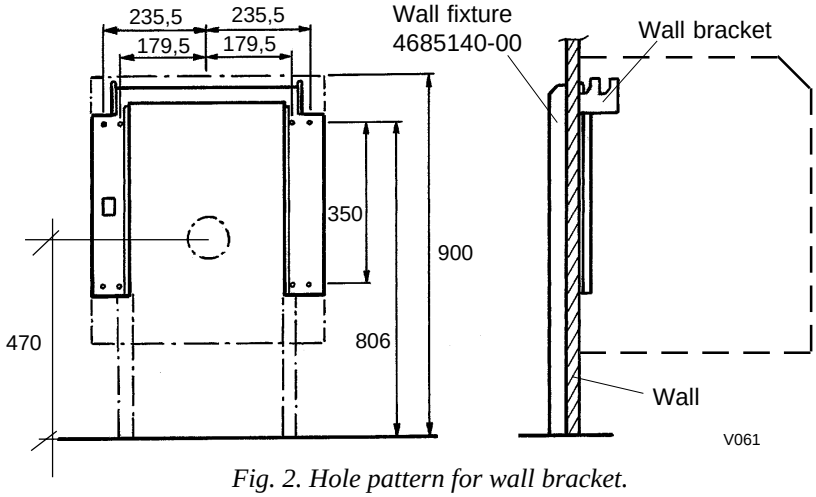

Fig. 2. Hole pattern for wall bracket.

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- If support legs are to be used: remove the transport stay and attach the legs before fixing the disinfector in position.
- Make sure that the disinfector hooks properly into the bracket when it is mounted on the wall fitting.

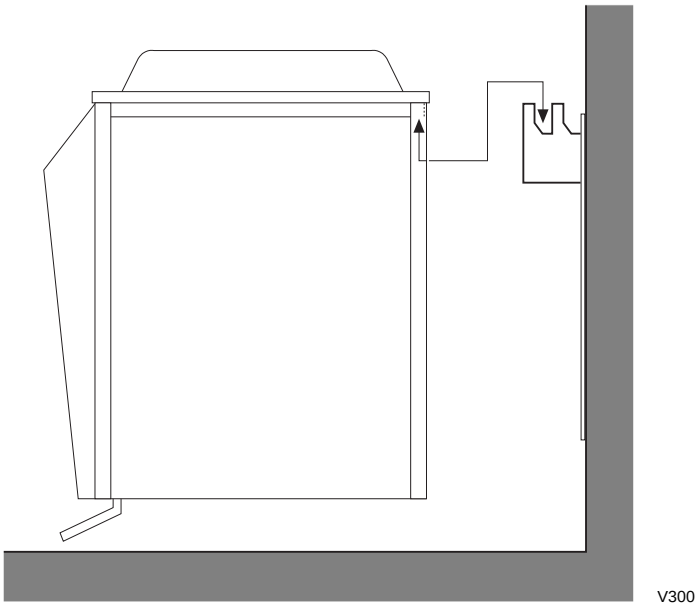
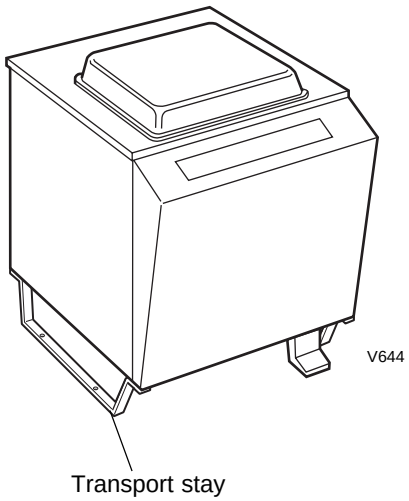


Fig 3. Mounting the wall bracket.



- Remove the transport stays.

Connection of electricity, water, drain, and possibly steam

May only be performed by authorized personnel.

- The electrical installation must include a cut-off device in the power supply line to the machine to facilitate maintenance and servicing. The device shall be located within easy reach on the wall.
- The terminals for electric installation are located under the cover of the terminal block.
- Connect the disinfector to protective earth and to the voltage supply stated on the type data plate. Check that the correct fuse is fitted. The recommended fuse value is stated on the type plate.
- The mounting bracket for the terminal box can be unscrewed and pulled forward to facilitate installation.

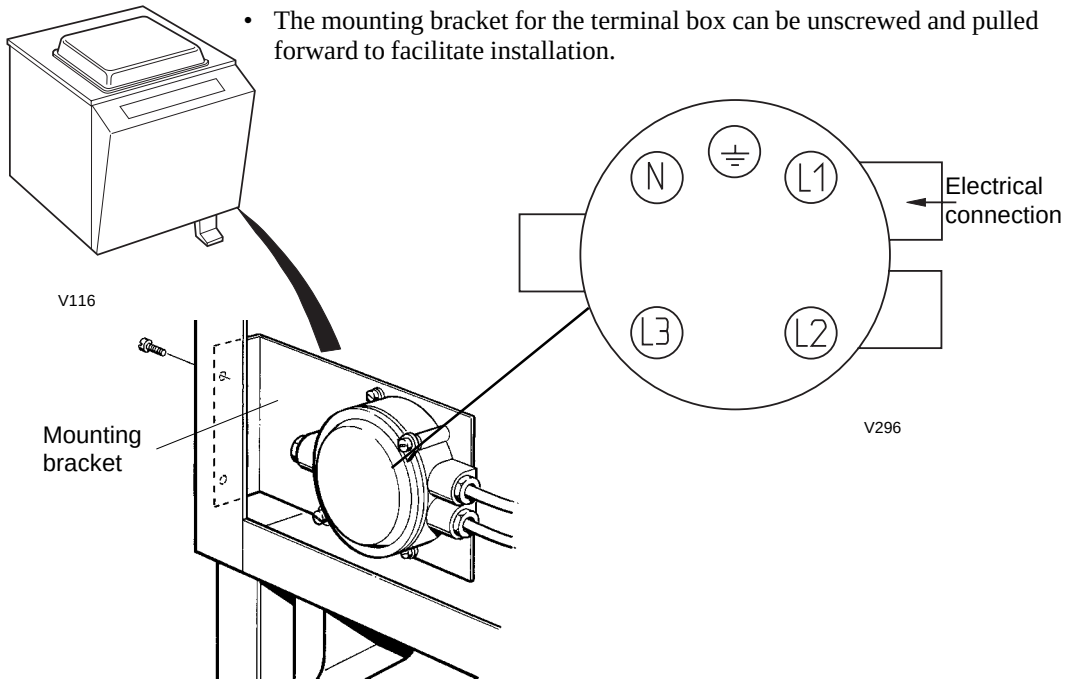


Fig. 4. Electrical connection (see electric circuit diagram in Service instructions).

- To prevent clogging of filters and valves, flush the water pipes clean, and any steam pipes too, that are to be connected to the machine.
- Connect the disinfector to the cold and hot water supply, and to steam supply if used. The water and steam connections must conform to the following requirements:

	Connection (mm)	Pressure (kPa)	Flow (l/s)	Consumption (l/process)	
				Normal	Glassware
Cold water	15	50-500	0,2	15	8
Hot water	15	50-500	0,2	18	16
Steam	15	60-300		0,5 kg/process	

- Drill out the steam jets if necesssary as per the table below:

Steam pressure kPa	60-80	80-125	125-200	200-250	250-300
Hole diameters mm	5	4	3.5	3	2,5

- Teflon tape is recommended for sealing the connections.

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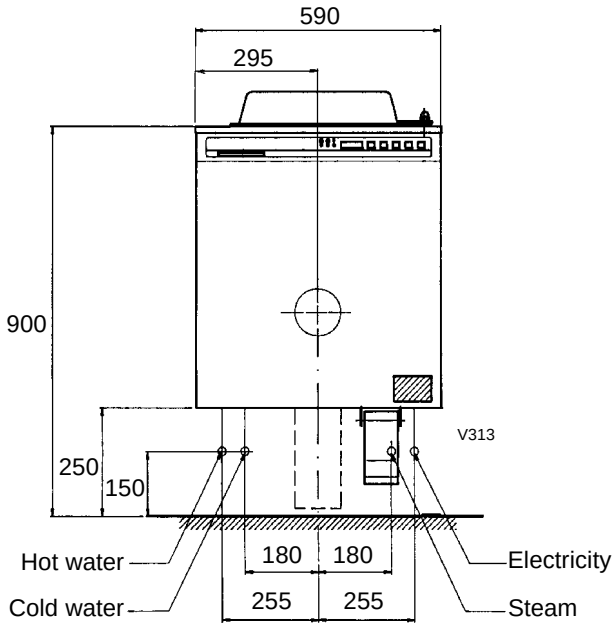


Fig. 5. Connection of water and steam supply.

- Connect the disinfector to drain outlet. The drain outlet can be connected either to the rear or downwards as shown in figure 6. Pipe diameter: 110 mm.

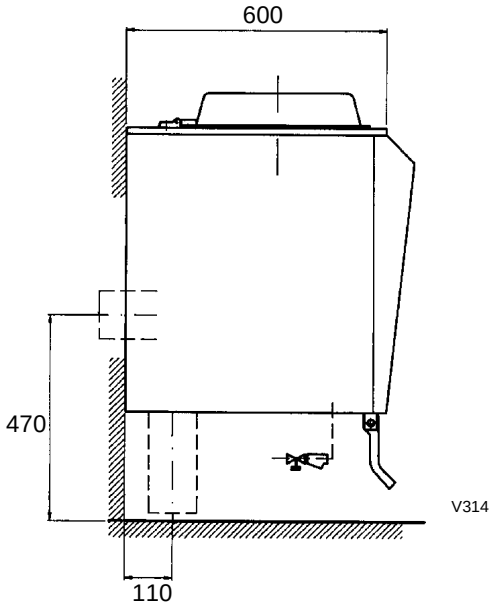


Fig. 6. Connection of drain outlet.

Goods arrangement chart

Place the notice with user's instruction on the wall above the disinfector. Make sure that the lid does not obscure the chart.

Detergent container

- For machines fitted with a dosing system, a tray is provided for the detergent container, which is fitted on the left-hand or right-hand side of the disinfector (Fig. 7).
- Fit the tray with the screws in the two cage nuts.

> ***Wear protective gloves. The media in the cans can be corrosive.***

- The container may also be placed on the floor or on the lower shelf of an adjacent sink unit, up to a distance of about 70 cm from the disinfector. The bottom of the container should not be higher than the lower edge of the side plates on the disinfector.
- The suction line that is inserted into the detergent container is placed inside the front panel on delivery. Som option kan Spoldesinfektorn förses med nivågivare för medel.

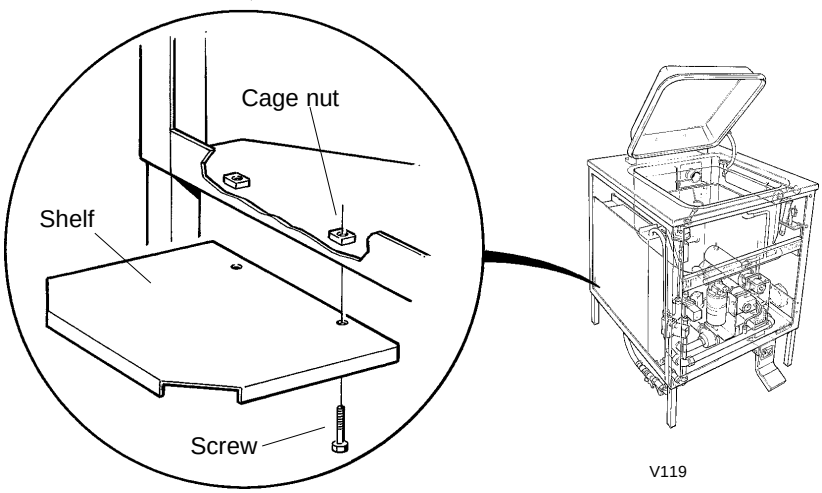


Fig. 7. Tray for detergent container.

Settings and functional check

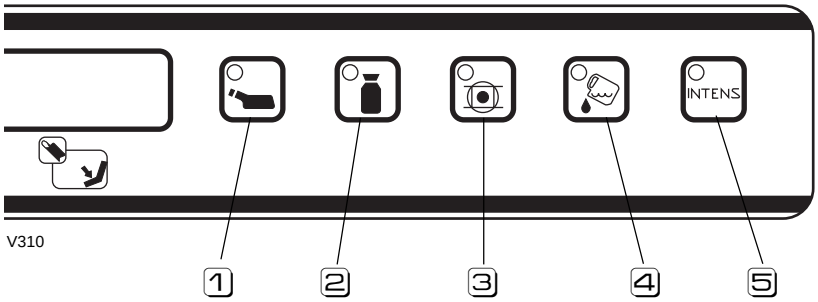
- Check to make sure that the disinfector is connected to the correct voltage as indicated on the type data plate.
- Open the water valves, and steam valve if relevant, and turn on the main switch.

To adapt the machine to the prevailing operating conditions, a number of parameters must be checked and possibly reset when installing.

The following parameters are to be checked when installing:

- Amount of cleaning agent, see page 10.
- Amount of deliming agent, see page 10.

Checking and changing preset parameters



To check the parameters for the above items, you should enter the service program as follows:

- Simultaneously press [4] and [5] for 10 seconds.

The machine is then reset to the Service mode (see also under the heading 'Service program'). The push buttons [1] - [5] will have the following functions:

[1]	Up	[4]	Abort
[2]	Down	[5]	Completed
[3]	ON/OFF		

- Press [1] and [2] until you arrive at the desired line number as shown in the table below:

Parameter	Line number	Basic setting	Setting range
Amount of cleaning agent *	42	25	0 - 99
Amount of deliming agent *	48	13	0 - 99

* See further under the heading Setting the amount of detergent and descaling compound.

- Press 5 to enter the line. You can then read the set value and check it against the table above.

N.B.
To change the contents of a line you must first key in your authority code (1992) on line 00.

- Use [1] and [2] to change the contents of a line to the desired value as per the above table.

- Press [5] when you have finished. The display window will then go 'OFF' for a short period (the new value is stored in the machine memory) and then the new value will be displayed with a steady light.

  If you change your mind before pressing 'Completed', you can press [4]. The old value will then be reset again.
- Press [5] once again to quit the line and enter the line number. Go to the next line that is to be changed.
- Press [4] for three seconds to quit the service program.

The machine is now ready for operation.

Setting the amount of cleaning and deliming agents on pumps by means of adjusting screw

The disinfector may be supplied with three different dosage systems: two for detergent dosage and one for descaling compound. For descaling and spray dosage the amount of compound can be set in the service program (see Illustration 8).

May only be performed by authorized personnel.

This machine is connected to mains power supply and some components are live.

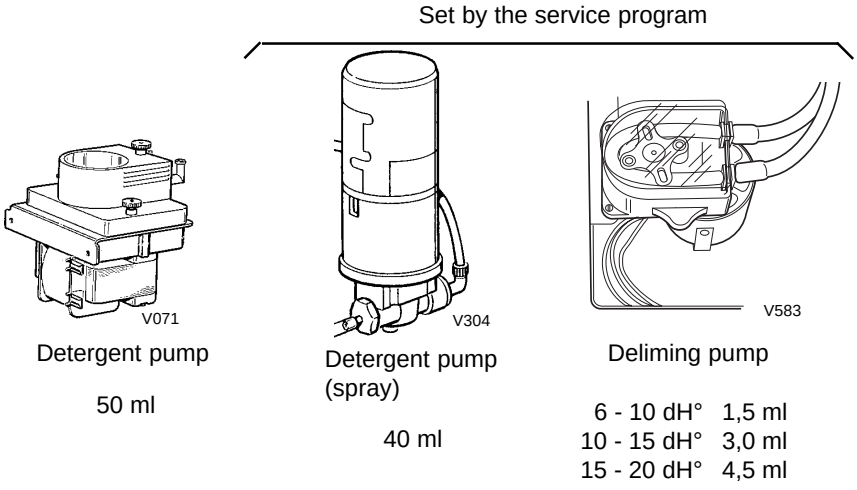


Fig. 8. Dosage pumps

- Measure out 100 ml of detergent into a measuring glass. Check that the suction pipe and pump are full of detergent before carrying out the check.
- Insert the suction pipe into the measuring glass and run a washing program. Remove the suction pipe and read off consumption. Adjust if necessary in the service program and repeat measurement until the amount is correct according to manufacturer's recommendations.

Checking and adjusting the door turning mechanism

May only be performed by authorized personnel.

This machine is connected to mains power supply and some components are live.

If a program starts and the lid is obstructed by an object between the lid and the top of the disinfector, the lid shall open again. The limit for this safety precaution is between 6 and 12 mm as shown in figure 9.

Use the accompanying spacer bar to check this function.

- Stand the bar on edge (so that it is 12 mm high).
- Insert it between the top of the machine and the lid.
- Close the lid.

The lid must change direction and open again.

- Then turn the bar so that it is 6 mm high.
- Check to ensure that the lid closes.

Adjustment of the lid reversing function is described in the Service instructions.

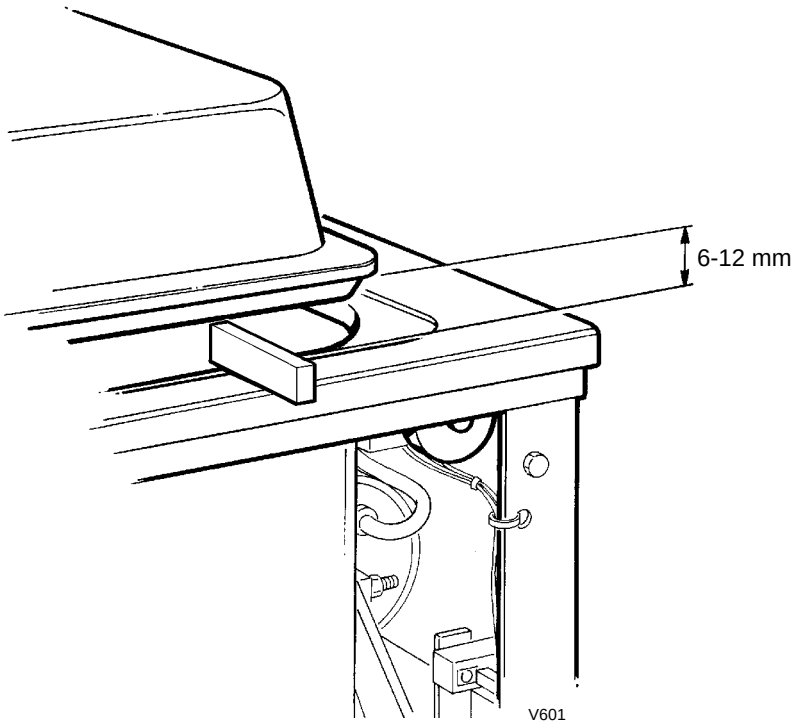
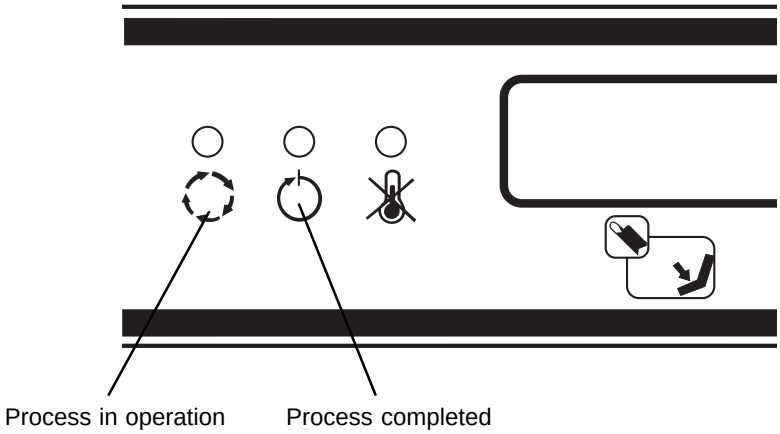


Fig. 9. Closing the lid.

Final inspection

- If the machine has dosing of cleaning agent: Press and check to make sure the lamp in the push button lights.
- Check to make sure the incoming hot water has the correct temperature. It should be between 45 and 60°C.
- Start the ’Normal’ program with empty machine and check that:
  - The PROCESS IN OPERATION lamp is ON.
  - The temperature rises continuously until its cooling phase begins.
  - Any pause for heating is not longer than about 10 minutes (applies to apparatus connected to steam and apparatus with steam generator).
  - The final temperature is higher than 90°C.
  - The PROCESS COMPLETE lamp lights when the program is over.

Fig. 10. Indicating lamps



- If the machine has a system for cleaning or deliming agent, or both:

  Pour a sufficient amount of agent into a measuring glass. Make sure that the suction hose is full of agent. Start a ’normal’ program and check that the disinfector uses the correct amount. For cleaning agent, the amount per program is normally about 30 ml, and for deliming agent about 1,5 to 4,5 ml (follow the supplier’s recommendations).

N.B.
When taking the reading, the suction pipe should not be in the measuring glass.

- Check that there are no leaks. Tighten if necessary.

Technical data

Weight	70	kg
Width 590		mm
Depth 600		mm
Height	900	mm

Ambient requirements:
Relative humidity maximum 80% at 31°C
Room temperature 5 - 40 °C

Cold water		
Connection	15 (1/2")	mm
Pressure	50-500	kPa
Flow	0,2	l/s
Consumption	13	l/process

Hot water		
Temperature	45-60	°C
Connection	15 (1/2")	mm
Pressure	50-500	kPa
Flow	0,2	l/s
Consumption	22	l/process

Steam (V version only)		
Connection	15 (1/2")	mm
Pressure	60-300	kPa
Consumption	0,3	kg/process
Drain outlet	dia. 110	mm

Max. external temperature	50	°C
Noise level ca 59	dB(A)	

Model	Electrical connection	Fuse	Power requirement
L1	230 V, 1N+PE 50 Hz (TN)	1x16 A	2,94 kW
L2	230 V, 3+PE 50 Hz	3x16 A	3,91 kW
L3	400 V, 3N+PE 50 Hz (TN)	3x10 A	3,91 kW
L5	240 V, 2+PE 60 Hz (TN)	2x15 A	3,29 kW
L6	240 V, 3N+PE 60 Hz (TN)	3x15 A	4,26 kW
L9	208 V, 2+PE 60 Hz (TN)	2x15 A	3,29 kW
L10	208 V, 3N+PE 60 Hz (TN)	3x15 A	4,26 kW
L14	200 V, 2+PE 50 Hz (TN)	2x16 A	2,94 kW
L15	200 V, 3+PE 50 Hz (TN)	3x16 A	2,94 kW
L18	200 V, 2+PE 60 Hz (TN)	2x16 A	3,29 kW
L19	200 V, 3+PE 60 Hz (TN)	3x16 A	3,29 kW
L22	230 V, 1N+PE 60 Hz (TN)	1x16 A	3,29 kW
L24	400 V, 3N+PE 60 Hz (TN	)3x10 A	4,26 kW
V2	230 V, 1N+PE 50Hz (TN)	1x10 A	1,01 kW
V3	240 V, 2+PE 60 Hz (TN)	2x15 A	1,36 kW
V4	208 V, 2+PE 60 Hz (TN)	2x15 A	1,36 kW
V7	230 V, 1N+PE 60Hz (TN)	1x10 A	1,36 kW

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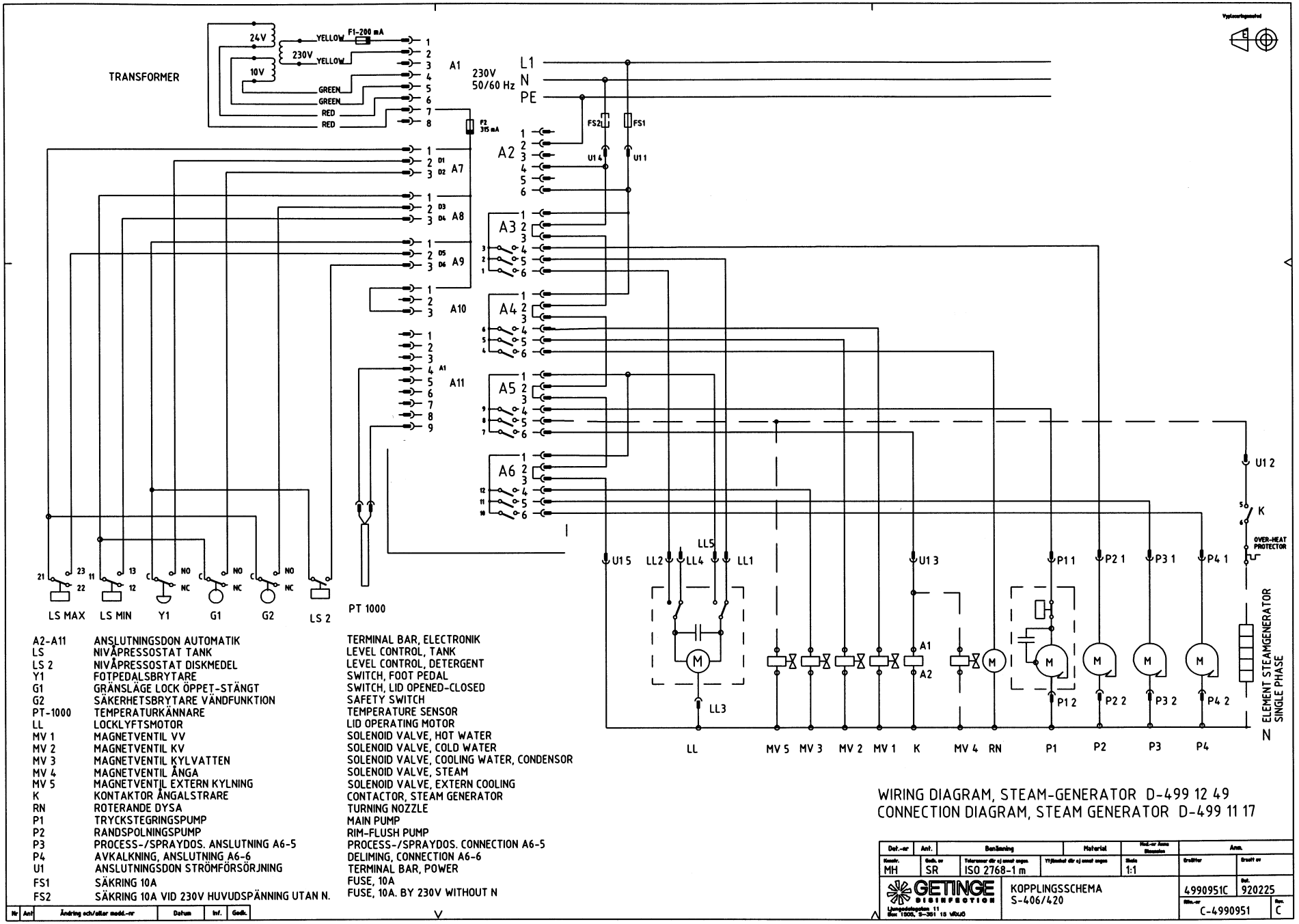
Diameter of nozzle orifice at various steam pressures

If no steam pressure is specified, the disinfector nozzle is delivered with an orifice diameter of 1.8 mm. If the pressure used is less than 300 kPa, the nozzle orifice should be made larger as shown in the table below.

Steam pressure kPa	60-80	80-125	125-200	200-250	250-300
Orifice diameter	5	4	3.5	3	2,5



A2-A11	ANSLUTNINGSDON AUTOMATIK	TERMINAL BAR, ELECTRONIK
LS	NIVÅPRESSOSTAT TANK	LEVEL CONTROL, TANK
LS 2	NIVÅPRESSOSTAT DISKMEDEL	LEVEL CONTROL, DETERGENT
Y1	FOTPEDALSBRYTARE	SWITCH, FOOT PEDAL
G1	GRÄNSLÄGE LOCK ÖPPET-STÄNGT	SWITCH, LID OPENED-CLOSED
G2	SÄKERHETSBRYTARE VÄNDFUNKTION	SAFETY SWITCH
PT-1000	TEMPERATURKÄNNARE	TEMPERATURE SENSOR
LL	LOCKLYFTSMOTOR	LID OPERATING MOTOR
MV 1	MAGNETVENTIL VV	SOLENOID VALVE, HOT WATER
MV 2	MAGNETVENTIL KV	SOLENOID VALVE, COLD WATER
MV 3	MAGNETVENTIL KYLVATTEN	SOLENOID VALVE, COOLING WATER, CONDENSOR
MV 4	MAGNETVENTIL ÅNGA	SOLENOID VALVE, STEAM
MV 5	MAGNETVENTIL EXTERN KYLNING	SOLENOID VALVE, EXTERN COOLING
K	KONTAKTOR ÅNGALSTRARE	CONTACTOR, STEAM GENERATOR
RN	ROTERANDE DYSA	TURNING NOZZLE
P1	TRYCKSTEGRINGSPUMP	MAIN PUMP
P2	RANDSPOLNINGSPUMP	RIM-FLUSH PUMP
P3	PROCESS-/SPRAYDOS. ANSLUTNING A6-5	PROCESS-/SPRAYDOS. CONNECTION A6-5
P4	AVKALKNING, ANSLUTNING A6-6	DELIMING, CONNECTION A6-6
U1	ANSLUTNINGSDON STRÖMFÖRSÖRJNING	TERMINAL BAR, POWER
FS1	SÄKRING 10A	FUSE, 10A
FS2	SÄKRING 10A VID 230V HUVUDSPÄNNING UTAN N.	FUSE, 10A. BY 230V WITHOUT N

WIRING DIAGRAM, STEAM-GENERATOR D-499 12 49
CONNECTION DIAGRAM, STEAM GENERATOR D-499 11 17

Nr	Ant	Ändring och/eller medd.-nr	Datum	Inf.	Godk.

Konstr.	Godk. av	Toleranser där ej annat anges	Ytjämnhet där ej annat anges	Skala
MH	SR	ISO 2768-1 m		1:1

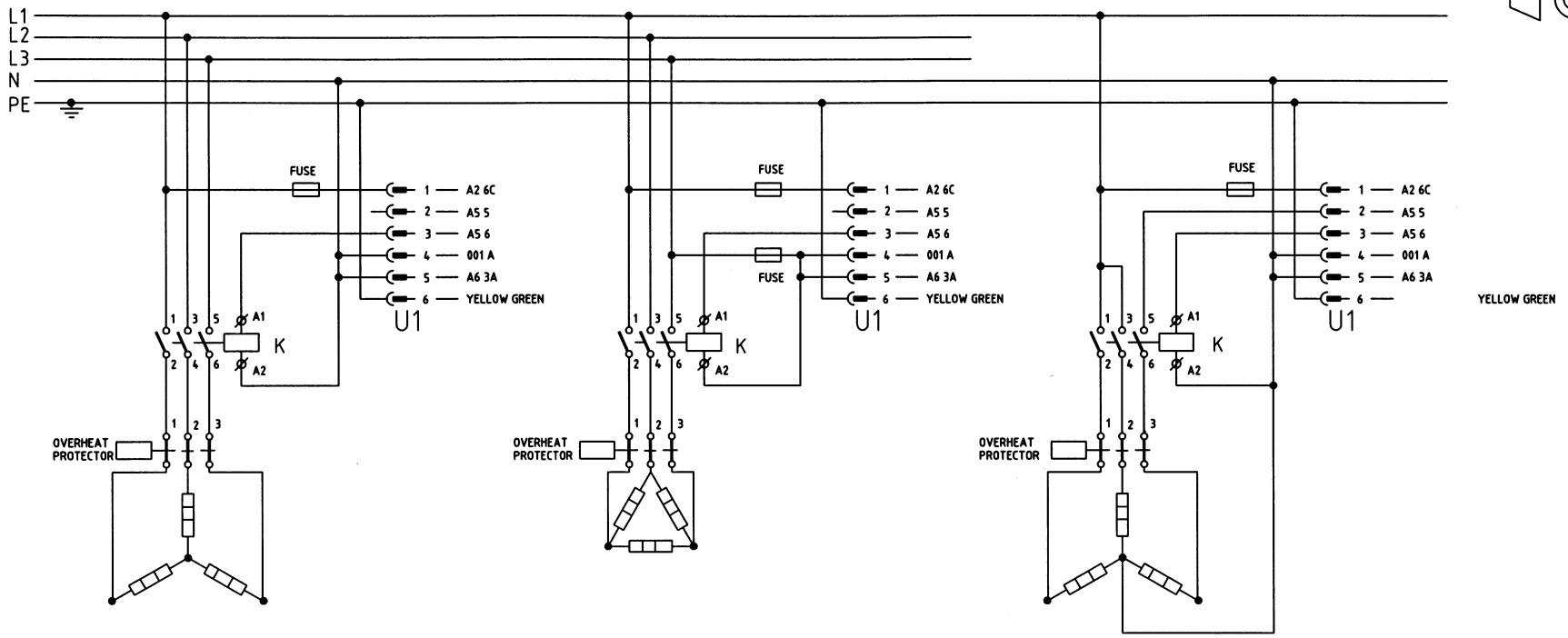
GETINGE DISINFECTION
Ljungadalsgatan 11
Box 1505, S-351 15 VÄXJÖ

KOPPLINGSSCHEMA
S-406/420

Ritad av	Ändr. nr
	4990951C

Ritn.-nr	Rev.
C-4990951	C

Toleranser d?r ej annat anges, ... Yt j?mnhet d?r ej annat anges, ... Vyplaceringsmetod



ELEMENTS STEAM-GENERATOR
400V 3N ~

ELEMENTS STEAM-GENERATOR
230V 3 ~

ELEMENTS STEAM-GENERATOR
230V SINGLE PHASE~

Nr	?ndring och/eller medd.-nr	Datum	Inf.	Godk.

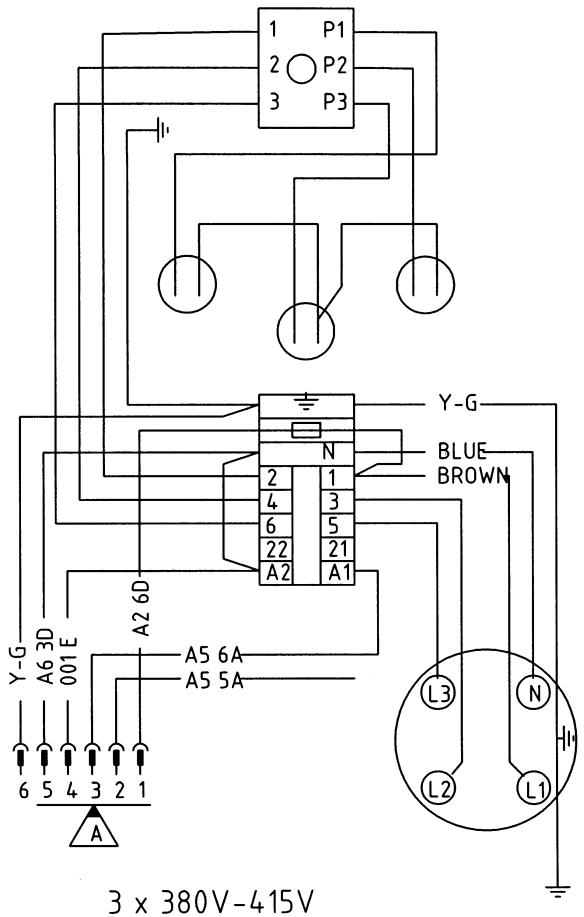
Def.-nr	Ant.	Benämning	Material	Mod.-nr Ämne Dimension	Anm.
Konstr. SR	Godk. av SR	Toleranser där ej annat anges	Ytjämnhet där ej annat anges	Skala 1:1	Ersätter 4991249 / Ersatt av / Def. 920818

GETINGE DISINFECTION
Ljungadalsgatan 11
Box 1505, S-351 15 VÄXJÖ

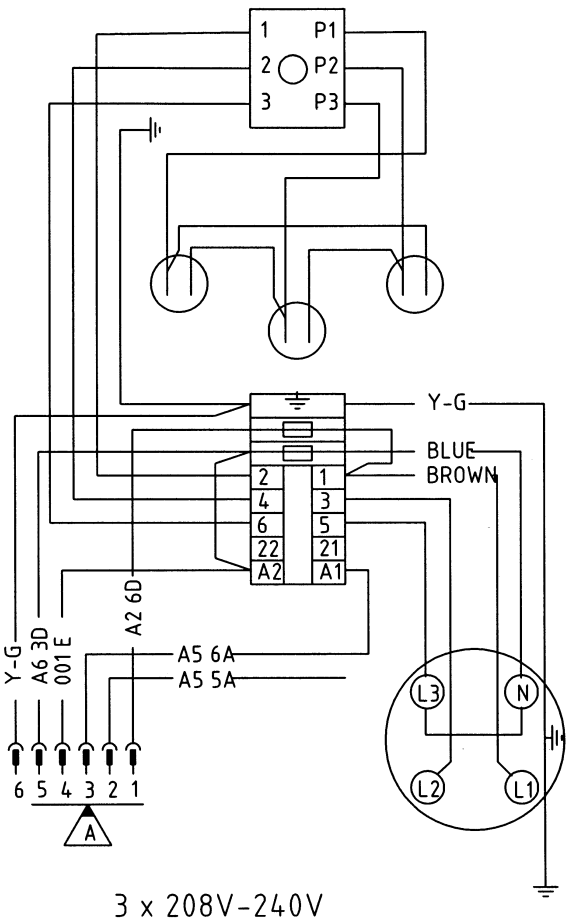
WIRING DIAGRAM
STEAM-GENERATOR
S-406/420

Rit.-nr D-4991249 | Rev.

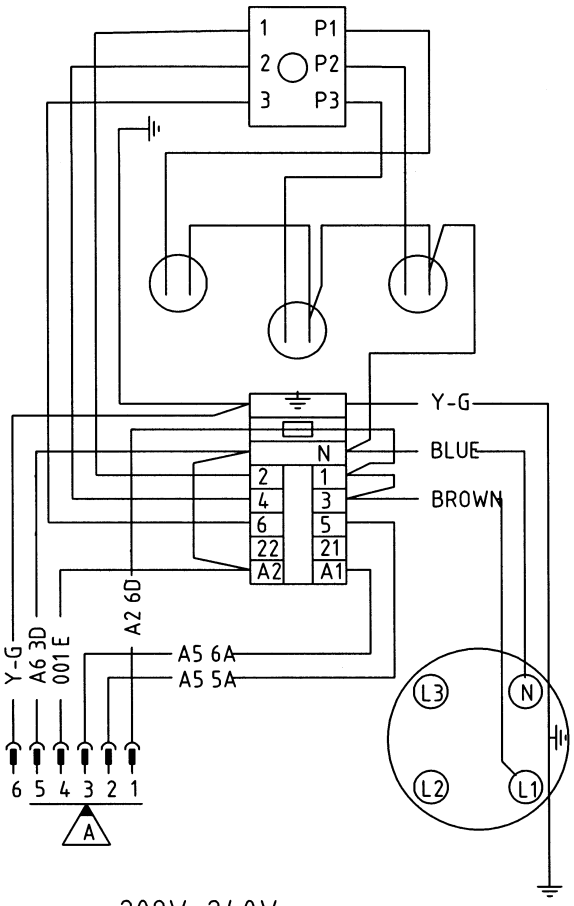
Vyplaceringsmetod



3 x 380V-415V
L1+L2+L3+N+PE



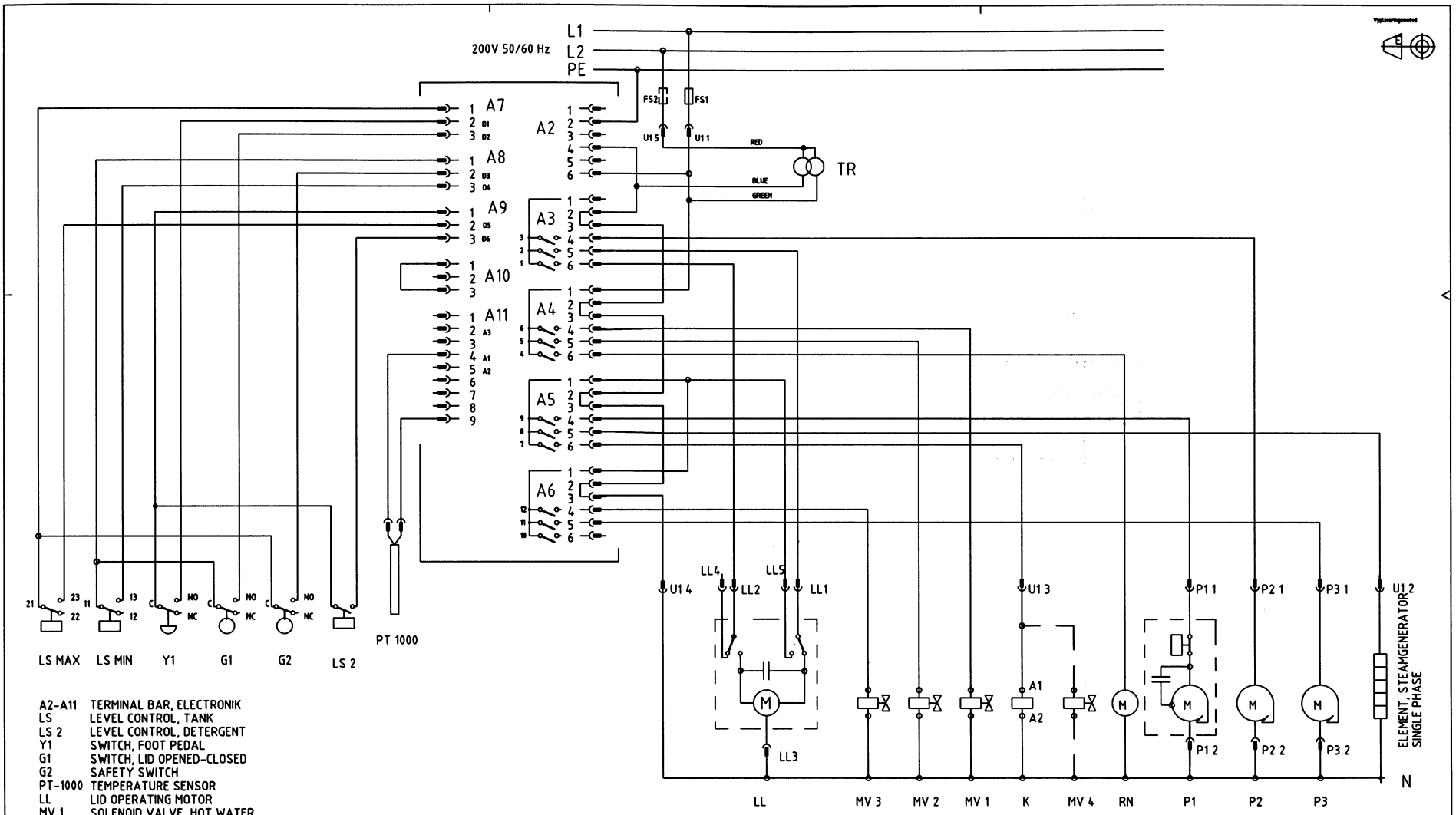
3 x 208V-240V
L1+L2+L3+PE



208V-240V
L1+N+PE
L1+L2+PE

Det.-nr	Ant.	Benämning	Material	Mod.-nr Ämne Dimension	Anm.
Konstr. MH	Godk. av MH	Toleranser där ej annat anges ISO 2768-1 m	Ytjämnhet där ej annat anges	Skala 1:1	Ersätter / Ersatt av
GETINGE DISINFECTION Ljungaddalsgatan 11 Box 1505, S-351 15 VÄXJÖ		INKOPPLING ÅNGALSTRARE S-406/415/421/422			4991117B / Dat. 920511
					Ritn.-nr D-4991117 / Rev. B

Nr	Ant	Ändring och/eller medd.-nr	Datum	Inf.	Godk.
B	1	GDK98270	980923	MH	PH
A	15	GDK98242	980901	MH	PH



A2-A11	TERMINAL BAR, ELECTRONIK
LS	LEVEL CONTROL, TANK
LS 2	LEVEL CONTROL, DETERGENT
Y1	SWITCH, FOOT PEDAL
G1	SWITCH, LID OPENED-CLOSED
G2	SAFETY SWITCH
PT-1000	TEMPERATURE SENSOR
LL	LID OPERATING MOTOR
MV 1	SOLENOID VALVE, HOT WATER
MV 2	SOLENOID VALVE, COLD WATER
MV 3	SOLENOID VALVE, COOLING WATER, CONDENSOR
MV 4	SOLENOID VALVE, STEAM
K	CONTACTOR, STEAM GENERATOR
RN	TURNING NOZZLE
P1	MAIN PUMP
P2	RIM-FLUSH PUMP
P3	DETERGENT PUMP
U1	TERMINAL BAR, POWER
FS1	FUSE 10A
FS2	FUSE 10A
TR	TRANSFORMER, 200V-230V

WIRING DIAGRAM, STEAM-GENERATOR D-499 12 49

CONNECTION DIAGRAM, STEAM GENERATOR D-499 40 60

Nr	Ant	Ändring och/eller medd.-nr	Datum	Inf.	Godk.

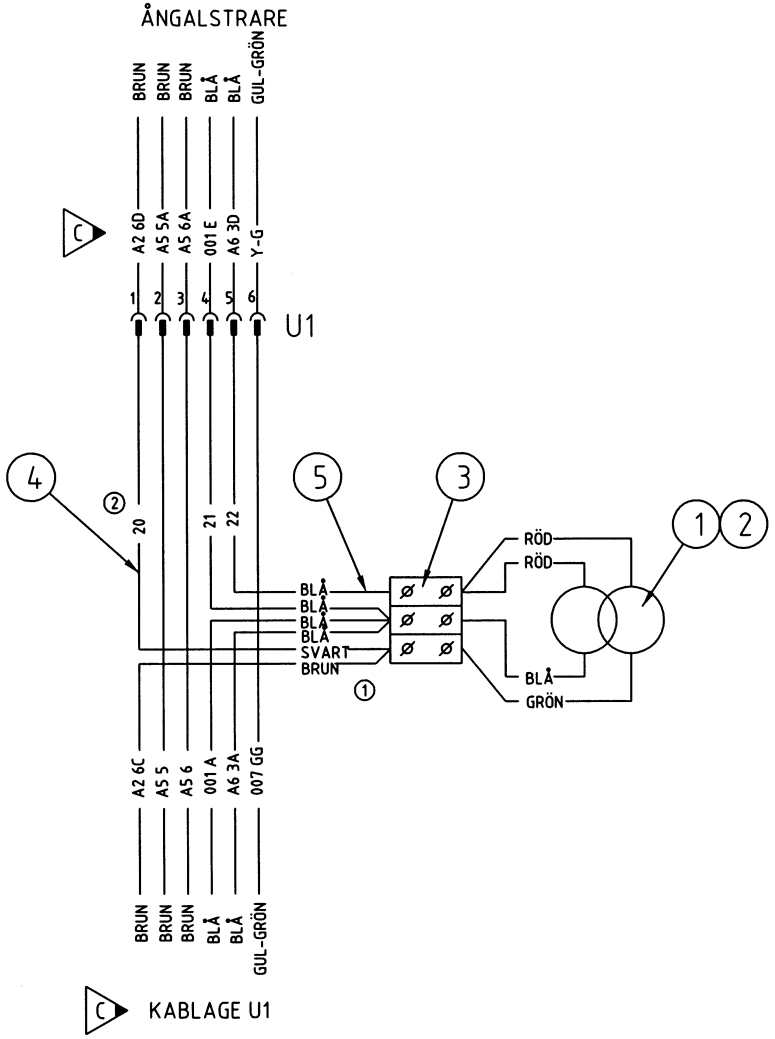
Det.-nr	Ant.	Benämning	Material	Mod.-nr Ämne Dimension	Anm.
Konstr. SR	Godk. nr SR	Toleranser där ej annat anges	Ytjämnhet där ej annat anges	Skala 1:1	Ersätter / Ersatt av

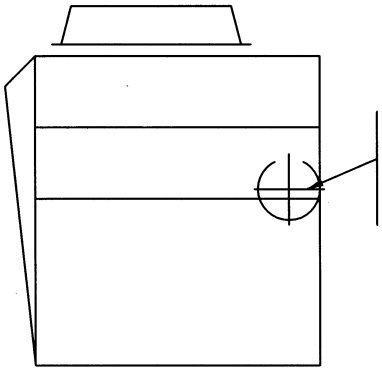
GETINGE DISINFECTION

WIRING DIAGRAM
200V 50/60Hz
S-406 / 422

Ritn.-nr 4991331 | Dat. 92.10.14

C-4991331





PLACERING AV TRANSFORMATOR
ANVÄND BEFINTLIGT HÅL
I STATIVET.

Vyplaceringsmetod

Nr	Ant	Ändring och/eller medd.-nr	Datum	Inf.	Godk.
C		GDK98242	980901	MH	PH
2		KABELNUMRERING 20, 21, 22 INFÖRD	950818	SR	
1		VRUA-086-6	950609	SR	

Det.-nr	Ant.	Benämning	Material	Mod.-nr Ämne Dimension	Anm.
Konstr. MH	Godk. av SR	Toleranser där ej annat anges ISO 2768-1 m	Ytjämnhet där ej annat anges	Skala 1:1	Ersätter 4992953C / Ersatt av

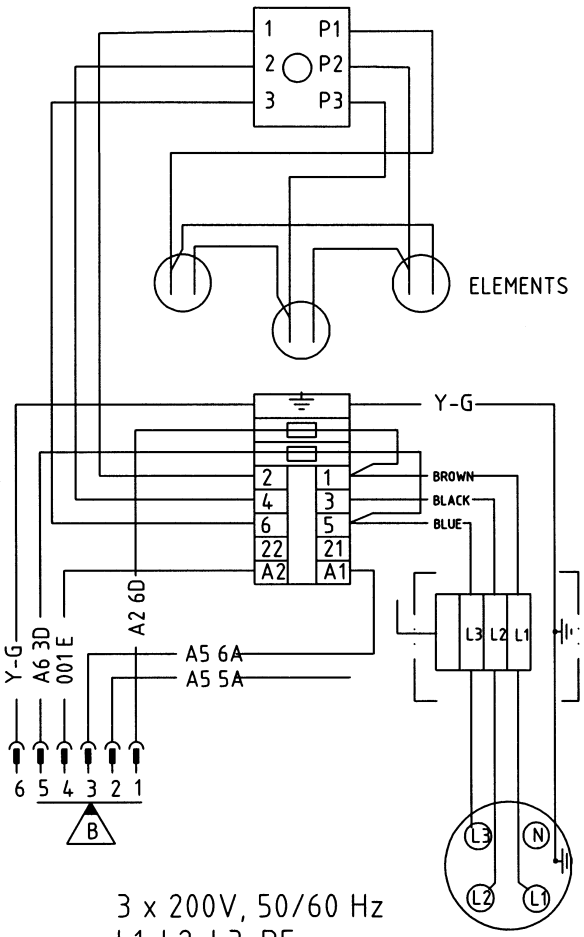
GETINGE DISINFECTION
Ljungadalsgatan 11
Box 1505, S-351 15 VÄXJÖ

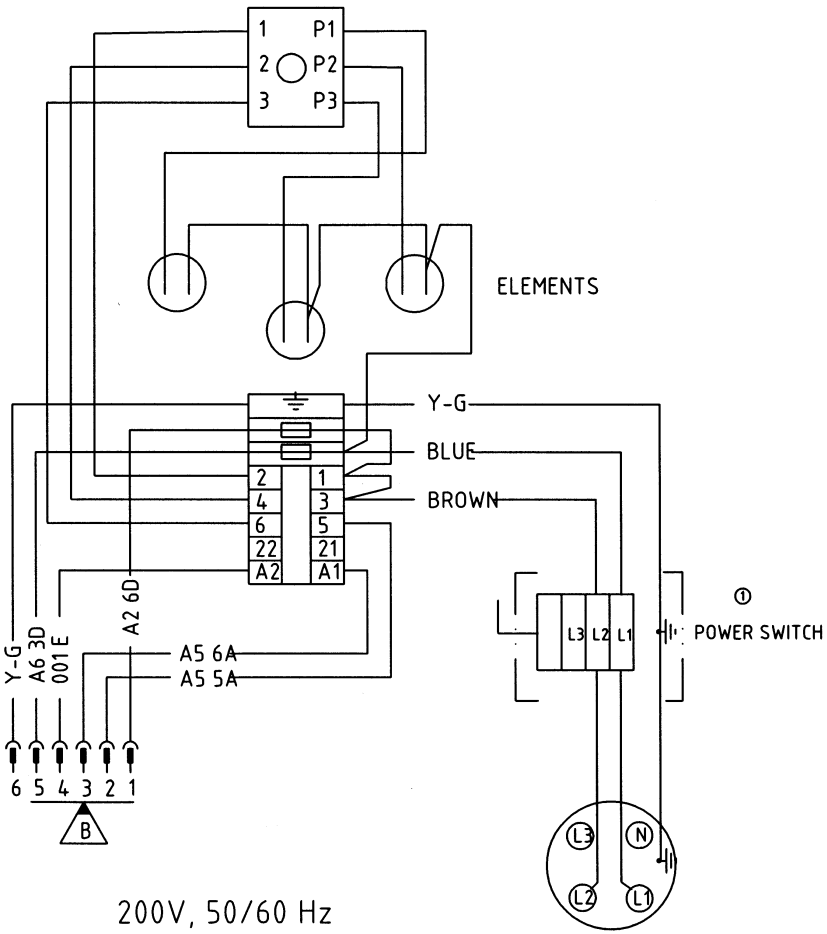
MONTERING TRAFO
200V 50/60 Hz
S-406/421/422

Dat. 941212

Ritn.-nr D-4992953

Rev. C





B	10	GDK98242	980901	MH	PH
1		POWER SWITCH INFÖRD	950818	SR	
Nr	Ant	Ändring och/eller medd.-nr	Datum	Inf.	Godk.

Def.-nr	Ant.	Benämning	Material	Med.-nr Ämne Dimension	Anm.
Konstr. SR	Godk. av SR	Toleranser där ej annat anges ISO 2768-1 m	Ytjämnhet där ej annat anges	Skala 1:1	Ersätter 4994060B / Ersatt av / Dat. 950609

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Ljungadalsgatan 11
Box 1505, S-351 15 VÄXJÖ

CONNECTION STEAMGENERATO
200V, JAPAN
S-406, S421, S-422

Ritn.-nr D-4994060 | Rev. B

This product is manufactured by:
GETINGE DISINFECTION AB, Ljungadalsgatan 11, Box 1505, 351 15 Växjö, Sweden

GETINGE
DISINFECTION